



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,184	10/31/2003	Noah C. Lassar	100202925-I	1056
22879	7590	04/24/2006	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			DO, AN H	
		ART UNIT		PAPER NUMBER
				2853

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/699,184	LASSAR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	An H. Do	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 February 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-45 is/are pending in the application.
  - 4a) Of the above claim(s) 41-45 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3, 13-17, 25-30 and 35-38 is/are rejected.
- 7) Claim(s) 4, 7-12, 18-24, 31-34, 39 and 40 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

The Response filed on 08 February 2006 has been acknowledged.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 6, 13, 14, 25-30 and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by DeMeerleer et al (US 6,402,299).

DeMeerleer et al disclose in Figures 1-4 the following claimed features:

Regarding claims 1, 25 and 26, a fluid ejection device (10) for receiving a signal and ejecting fluid in response thereto, comprising: an ink ejecting nozzle layer (printhead 16 having orifices 24 formed therein) having a substrate (body 12) with first (top surface) and second (side surface) surfaces joined along an edge (left corner of body 12); an insulating feature (TAB circuit 14) located on the first surface (top surface) adjacent the edge; and a flexible lead (electrical traces 30) that bends around the edge (left corner of body 12) and lies flush (recess 20) against the insulating feature (Figures 2 and 4).

Regarding claims 2 and 13, further comprising a primer layer (coating 46) of an insulating material, which lies between the substrate (12) and the nozzle layer (printhead 16) to define the insulating feature.

Regarding claims 3 and 28, wherein: the primer layer defines a firing chamber (18) around a firing element (Figures 2 and 4); and the firing chamber is configured in fluidic communication with the nozzle layer (column 2, line 65 to column 3, line 13).

Regarding claims 5 and 6, wherein a portion of the flexible lead has a narrowed cross-section which defines a weakened area (Figure 4 shows trace 30 has the bending portion), the flexible lead (30) bent at the weakened area such that another portion of the flexible lead (30) lies flush against the insulating feature (Figures 2 and 4).

Regarding claim 14, wherein the edge is a non-rectangular shape (the edge shown in Figure 2 is a square shape).

Regarding claim 27, wherein the means for insulating projects above the first surface (Figures 2 and 4).

Regarding claim 29, wherein the means for insulating also insulates the means for defining from the means for supporting (Figures 2 and 4).

Regarding claim 30, wherein the means for receiving (free trace area 42) further comprises means for bending the means for receiving at a selected location (recess 20) (Figure 4).

Regarding method claims 35-37, DeMeerleer et al also disclose a method insulating in view of the fact that the above structure is disclosed.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2853

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15-17 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMeerleer et al (US 6,402,299) in view of Daggs et al (US 5,422,667).

DeMeerleer et al disclose the claimed invention except for reciting the edge is a non-rectangular shape having a beveled surface, a notched out section or a stepped surface joining together the first and second surfaces which are not substantially orthogonal.

Daggs et al teach in Figures 1 and 2 the edge is a non-rectangular shape having a beveled surface, a notched out section or a stepped surface (a top cutout section of 12 and 28) joining together the first (12) and second (28) surfaces which are not substantially orthogonal.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a non-rectangular shaped edge having a notched out section, as taught by Daggs et al, for the purpose of providing a location for electrical interconnects.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-3, 5, 6, 13-17, 25-30 and 35-38 have been considered but are moot in view of the new ground(s) of rejection. The newly found reference of DeMeerleer et al (US 6,402,299) disclose the claimed invention as shown above.

***Allowable Subject Matter***

6. Claims 4, 7-12, 18-24, 31-34, 39 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An H. Do whose telephone number is 571-272-2143. The examiner can normally be reached on Monday-Friday (Flexible).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



An H. Do  
Examiner  
Art Unit 2853

AD  
April 15, 2006